

A NEW VARIETY OF BERLANDIERA LYRATA FROM NORTHWESTERN
MEXICO

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On-going studies of the Asteraceae of Mexico has revealed the following new variety.

A. Berlandiera lyrata A. Gray var. lyrata scapis monocephalis non ramosis, foliis non lobatis, et pedunculis dense albohirsutis differt.

TYPE: MEXICO. CHIHUAHUA: Yepachic (ca 28°30'N, 108°30'W), 21 Jun 1970, C.W. Pennington 1 (holotype TEX).

ADDITIONAL SPECIMENS EXAMINED: MEXICO. CHIHUAHUA: El Cima, 29 Jun 1936, LeSueur 1037 (LL, TEX); Sitenapuchi, 8 Jul 1955, Pennington 506 (TEX); ca Pawiciki, 13 Jul 1945, Pennington 548 (TEX); Yepachic, 3 Sep 1971, Pennington 17 (TEX).

SONORA: Quipar, 23 Jul 1970, Pennington 80 (TEX); Maicoba, 5000 ft, Jul 1968, Pennington 153, 189 (TEX); 23.5 mi NE Bacoachic, on road to Esqueda, 4480 ft, 10 May 1948, Wiggins 11743 (TEX).

The distribution of the two varieties is shown in Figure 1.

Berlandiera received a fairly intensive study by Pinkava (1967). He recognized two varieties within B. lyrata, a widespread var. lyrata and a sporadically occurring var. macrophylla A. Gray, much as did Turner and Johnston (1956) in a preliminary survey of the species. Indeed, in our paper we stated that "var. macrophylla Gray is a distinct taxon occurring at high altitudes on limestone mountains (Guadalupe and Glass Mountains in Trans-Pecos Texas). Occasional specimens intermediate between this variety and var. lyrata (which occurs at lower elevations) may be found in herbaria, but these are few, and for the most part the taxa can be clearly distinguished by differences in habit and leaf features. Both varieties were recognized by Gray, and the present treatment does not differ appreciably from his."

This has proven to be a naive statement and should have been apparent at the time in that we recognized (by

map, Fig. 6) var. macrophylla as occurring in disparate regions of Arizona, northeastern Mexico, and northwestern Mexico. Our views might have influenced Pinkava in that he accepted the variety with implied reservation, but mapped its distribution in a manner similar to our own.

After 30 years of more extensive familiarity with Berlandiera lyrata, both in the field and in the herbarium, I now view the var. macrophylla (type from southeastern Arizona) as only a high-elevational leaf-form which is unworthy of varietal recognition, the only characters distinguishing this from the typical form being that of unlobed leaves, and this being variable both within populations and occasionally upon the same plant.

Recent collections of B. lyrata from west-central Chihuahua and adjacent Sonora (along with a few earlier collections), however, has revealed the relatively "clean" regional variety described herein. The var. monocephala apparently does not occur with var. lyrata and possesses several characters which are not found in combination elsewhere, although the occasional character may vary in peripheral regions. Examples of both varieties were examined by Pinkava and myself (at least such were mapped) but sufficient collections were unavailable at the time for character evaluation.

The var. monocephala superficially resembles the form previously referred to as var macrophylla in that the leaves are generally longer and unlobed, like the latter. It differs in that these characters are reasonably consistent and combine with yet several others such as elongate monocephalic peduncles, white antrose or spreading white hairs which are largely without purplish swollen basal cells, and have larger spatulate outer pales. Indeed, were I so inclined, I might have accorded the group specific or subspecific rank, for the taxon appears to be as distinct from the var. lyrata as B. subacaulis, which both Pinkava and I maintain.

Most of the recent collections of the var. lyrata which I have examined (cited above), including the type, were made by Dr. Campbell Pennington, geographer at Texas A. & M. University who has studied the ethnobotany of west-central Chihuahua (Pennington, 1969). He has made the following observations regarding the use of the roots of this taxon (information from labels):

506- used to make tea for stomach disorders and as a laxative

- 17- the mashed root is used as a poultice for burns, or mashed and used as a strong tea for stomach disorders
- 548- a tea for lung ingestion
- 80- a tea used to cure "pulmonia" (also gathered and sold to herb dealers elsewhere)
- 153 and 159- a tea for lung congestion (not cited in the above tabulations).

Indeed, the type of var. monocephala, which is referred to as "peonia", a mestizo term, bears the following notations:

- (1) The Pima Bajo claim that the root of this yellow-flowered plant is used in preparing a tea taken to cure stomach disorders. The root (tatkara) is boiled for about two hours and the liquid is strained through a loosely woven basket or a tin can which has had holes punched in its bottom. This medicine is taken in the early morning, before eating.
- (2) It is also claimed that about six such roots are useful in preparing a drink taken by a woman who delays giving birth. The potion must be left outside of the pregnant woman's house for at least forty-eight hours before being taken.

Finally, it should be noted that the roots of var. monocephala appears to be much larger and woodier than those of var lyrata, to judge from Pennington 506 (TEX) which has a massive woody tap root up to 20 cm long and 4 cm wide at the apex, which is topped by several short woody basal crowns.

LITERATURE CITED

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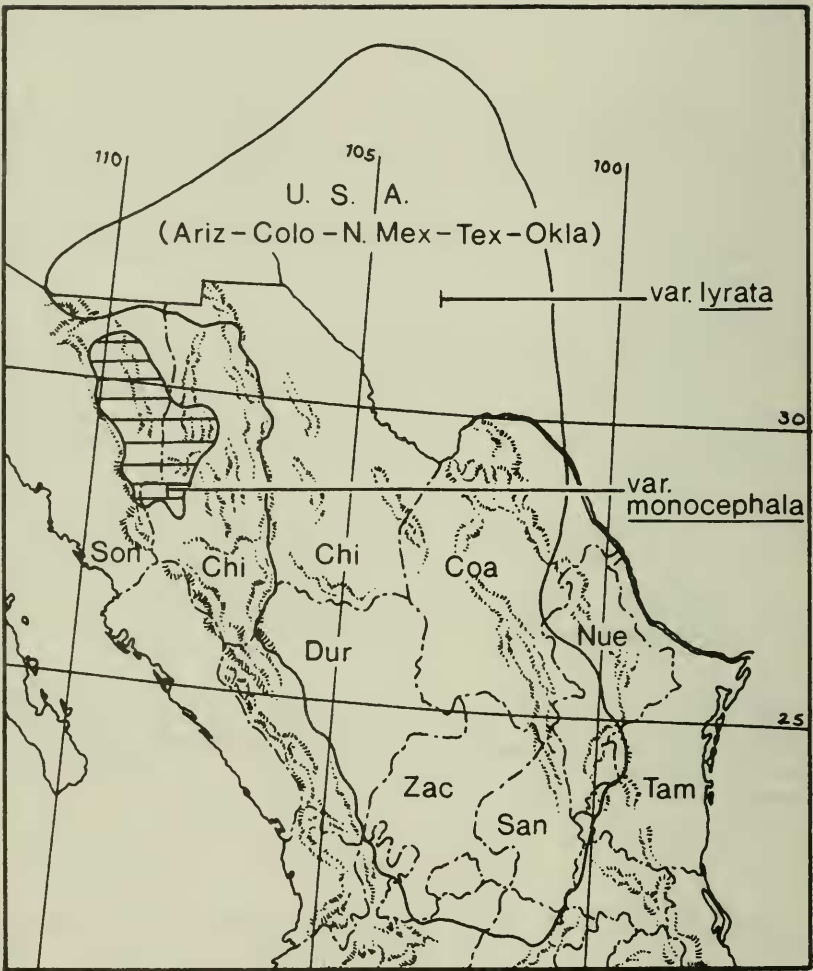


Fig 1 Distribution of Berlandiera varieties.